



DVT DIGITAL VOLTMETER/TACHOMETER INSTRUCTIONS

The Hangar 9 DVT includes a standard 9 volt alkaline battery that is installed. To change the battery, slide open the battery cover on the back of the DVT. Connect the battery to the leads in the battery compartment and slide the battery cover back into place.

DVT OPERATION

Turn on the DVT by pushing the red button. The first function is the 2-blade tachometer function, followed by the 3- and 4- blade tachometer functions. Pressing the button a fourth time will activate the voltmeter function. To turn the DVT OFF, simply press the red button a fifth time.

TESTING THE TACHOMETER FUNCTION

Test the tachometer by holding it up to a fluorescent light while it is in one of the three tachometer functions. Depending on which blade function is selected, the DVT display should indicate one of the following with a variance of +/- 0.1, due to the current cycle of 60Hz:

2-Blade	360 (3600 rpm)
3-Blade	240 (2400 rpm)
4-Blade	180 (1800 rpm)

If the readings are not correct, the 9V battery may be low in power. "BATLO" will be indicated on the DVT's LCD screen in the upper right-hand corner.

OPERATING THE TACHOMETER

The operating range for the DVT is 0 to 29,000 rpm. Depress the red button to access the 2-, 3- or 4-blade tachometer function, depending on the type of propeller used. Hold the DVT approximately two inches in front of the spinning propeller, with the sensor pointing toward the propeller. To calculate engine rpm, multiply the number on the display by 10.

NOTE: Holding the button down will "freeze" the last reading until you release the button.

CAUTION: When using the tachometer function, remove the voltmeter leads from the DVT before checking the engine rpm.

OPERATING THE VOLTMETER—5 TO 16 VOLTS

To measure the voltage of your batteries, plug the connector that is pre-wired on the included "Y" harness (the plug opposite of the receiver/transmitter plug) into the receptacle located on the right side of the DVT.

Testing Receiver Voltage

Ensure the receiver is OFF. Connect the universal servo plug on the "Y" harness to the receiver battery pack. The polarity switch should be in the "STD" position. There is a load of 240mAh for 4.8 volt battery packs and a 300mAh load for 6 volt battery packs to simulate normal battery drain. A fully charged 4.8 volt battery pack will indicate approximately 5.4 volts. A fully charged 6 volt battery pack will indicate approximately 6.7 volts. Indications may vary depending on the condition and type of cells you are using. We recommend that you do not fly when using a 4-cell pack below 4.8 volts or a 5-cell pack below 6 volts.



See Reverse Side for
Warranty & Repair Information

For more information about Hangar 9 products, visit our web site at www.horizonhobby.com.

Testing Transmitter Voltage

Ensure the transmitter is OFF. Insert the transmitter connector into the charger jack. Depending on the brand of transmitter tested, it will be necessary to move the switch on the right side of the DVT to either the "JR" or "STD" position. There is a 400mAh load on 9.6 volt transmitter packs to simulate normal drain. A fully charged 8-cell transmitter pack will indicate approximately 11.3 volts, depending on the type and condition of the batteries. Generally, it is safe to fly down to about 9.4 volts before it is necessary to recharge the transmitter.

NOTE: The DVT is reverse polarity protected. If the polarity switch is in the wrong position, the display will indicate "0.0". If this occurs, simply move the switch to the opposite side. If the display continues to indicate "0.0", check to ensure the receiver battery has been connected correctly. Also, some transmitters are "diode" protected, which will not allow the batteries to be discharged through the charge jack.

REPAIR AND WARRANTY INFORMATION

IMPORTANT:

Be sure to keep your original bill of sale, along with the following warranty information, as you will be required to provide proof of purchase for the equipment serviced under warranty.

This quality Hangar 9 product is warranted to the original purchaser against manufacturer defects in material and workmanship for two years from the date of purchase. During this period, Horizon Service Center will repair or replace, at our discretion, the complete product or any component that is found to be factory defective, at no cost to the consumer. This warranty is limited to the original purchaser of the product and is not transferable.

REPAIR PROCEDURE

In the event this Hangar 9 product requires repair, please follow the instructions listed below:

1. Ship the product to the address listed below, in its original carton or equivalent, fully insured and prepaid. Do not use the product carton itself as a shipping carton. You should package it within a sturdy shipping container, using additional packing material to safeguard against damage during transit. Horizon Service Center is not responsible for any damages incurred during shipping.
2. Include a complete itemized list of the item(s) returned. Describe the problem and the action you wish to be taken. Please include detailed information explaining your operation of the product and the problem(s) encountered. Date your correspondence and write your complete name and address on the enclosure. Also include a phone number where you can be reached during normal business hours.
3. Should your repair cost exceed 50% of the manufacturer's suggested retail price, you will be provided with an estimate advising you of your options.
4. With your letter, advise us of the payment method you prefer to use. Horizon Service Center accepts VISA or MasterCard, or we can return C.O.D. cash only. If you prefer to use a credit card, please include your card number and expiration date.

WARRANTY PROCEDURE

If your product requires repair that you believe qualifies as warranty repair, please state this in your correspondence and follow all the instructions listed above in steps 1 and 2. **You must also enclose your dated bill of sale**, (or a copy), showing that you purchased the product within the last two years to qualify for warranty service at no charge.

Thank you for purchasing this Hangar 9 product. We hope it provides you with many hours of enjoyment as you participate in the R/C hobby.

Mail your product to:
Horizon Service Center
4105 Fieldstone Road
Champaign, IL 61822
Phone: (217) 355-9511